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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,990	06/06/2000	Chris A. Hamilton	024/1	8460

7590

04/24/2002

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Woodbridge, NJ 07095

EXAMINER

ENG, GEORGE

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 04/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,990

Applicant(s)

HAMILTON, CHRIS A.

Examiner

George Eng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 10/22/2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment filed 10/22/2001 (paper no. 7).

Drawings

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 10/22/2001, have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b):

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 5 and 14-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 5,914,747 (hereinafter Hamilton) in view of U.S. Patent No. 5,512,939 (hereinafter Zhou)

Regarding claims 5 and 14-15, Hamilton discloses a video conferencing system comprising a conference bridge for interconnecting a plurality of remotely located videoconference stations, means for detecting whether a conferee is speaking and means for visually altering an image of said conferee display in other conferee stations if said conferee is determined to be speaking (col. 3 lines 19-38). Hamilton differs from the claimed invention in not specifically teaching analyzing a consistency between a visual lip movement of said conferee and an audio signal from a conferee station in which said conferee is located. However, Zhou teaches a method for dynamically allocating bit for encoding audio and video signal based on the perceptual significance of audio and video information comprising the steps of analyzing between visual lip movement and audio signal from a person in order to improve perceptual quality. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Hamilton in having the step of analyzing the consistency between the visual lip movement of said conferee and the audio signal from the conferee station

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in which said conferee is located, as per teaching of Zhou, because it improves perceptual quality so that the audio signal will be encoded with grater accuracy than the video signal when the audio signal consists of voice signals.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Zhou (US PAT. 5,512,939).

Regarding claim 15, Zhou teaches a method for determining whether a conferee in a videoconference is speaking, comprising analyzing a consistency between a visual lip movement of said conferee and an audio signal from a conference station in which said conferee is located (abstract and col. 1 line 56 through col. 2 line 47)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata et al. (JP 06-062400 hereinafter Ogata) or Kamata et al. (US PAT. 5,953,050 hereinafter Kamata) in view of Zhou (US PAT. 5,512,939).

Regarding claim 5, Ogata discloses a conference control system comprising means (2, figure 1) for interconnecting a plurality of videoconference stations (1a-1f, figure 1) and means for visually altering an image of at least one of a plurality of remotely located conferees who is a speaker at a particular time (abstract). Kamata discloses a video conferencing system comprising means for interconnecting a plurality of video conference stations (figure 1 and col. 1 lines 13-20) and means for visually altering an image of at least one of a plurality of remotely located conferees when said of at least one of said plurality of remotely located conferees is speaking (figure 2B and col. 1 lines 36-41). However, Ogata or Kamata differs from the claimed invention in not specifically teaching that an algorithm for determining whether a conferee is speaking by analyzing a consistency between a visual lip movement of the conferee and an audio signal from a conference station in which the conferee is located. However, Zhou teaches a lip motion subroutine for detecting the location and movement of the lips of a person present in video scene in order to determine when a person is speaking (abstract and col. 1 line 56 through col. 2 line 47). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify either Ogata or Kamata in having the algorithm for determining which speakers speaking by comparing visual lip movement, as per teaching of Zhou, because it enhances the video communication system so that the lips regions can be encoded more accurately.

Regarding claims 6-8, Ogata disclose to identify the presence or absence of speech of each participant according to the voice level of the conference participant (abstract). Thus, a voice activity detector is obviously located at each conference stations or implemented at the conference bridge. In addition, Kamata also teaches that means for altering is responsive to a voice activity detector (76) located at each conference stations or implemented at the conference bridge (figure 12 and col. 12 lines 4-13).

Regarding claim 9, Zhou teaches image analysis and recognition software (730, figure 7 and col. 14 lines 54-63).

Regarding claim 10, Ogata teaches to display a red rectangular marker in a window display frame to indicate who is a speaker (abstract). In addition, Kamata also discloses means for emphasizing an image of a remote speaker to be speaking (fig. 2B and col. 1 lines 36-41).

Regarding claim 11, Ogata discloses a videoconference station (1a, figure 1) obviously comprising a transmitter to transmit a combined audio and video signal to a videoconference bridge (abstract). Kamata discloses a videoconference station (1, figure 1) obviously comprising a transmitter to transmit a combined audio and video signal to a videoconference bridge (figure 1 and col. 1 lines 36-41). However, Ogata or Kamata differs from the claimed invention in not specifically teaching that an algorithm for determining whether a conferee is speaking by analyzing a consistency between a visual lip movement of the conferee and an audio signal from a conference station in which the conferee is located. However, Zhou teaches a lip motion subroutine for detecting the location and movement of the lips of a person present in video scene in order to determine when a person is speaking (abstract and col. 1 line 56 through col. 2 line 47). Therefore, it would have been obvious to one having ordinary skill in the art at the time the

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invention was made to modify either Ogata or Kamata in having the algorithm for determining which speakers speaking by comparing visual lip movement, as per teaching of Zhou, because it enhances the video communication system so that the lips regions can be encoded more accurately.

Regarding claim 12, Ogata disclose to identify the presence or absence of speech of each participant according to the voice level of the conference participant (abstract). Thus, a voice activity detector is obviously located at videoconference station. In addition, Kamata also teaches that means for altering is responsive to a voice activity detector (76) located at conference station (figure 12 and col. 12 lines 4-13).

Regarding claim 13, the limitations of the claim are rejected as the same reasons set forth in claim 9.

Regarding claim 14, the limitations of the claim are rejected as the same reasons set forth in claim 1.

Response to Arguments

9. Applicant's arguments filed 10/22/2001 (paper no. 7) have been fully considered but they are not persuasive.

In response to applicant's argument that there is no teaching of the videoconference system may precisely determine whether a conferee is peaking by analyzing the consistency between a visual lip movement of the conferee and the audio signal from the conference station in which the conferee is located. However, it appears that Zhou clearly teaches such limitation

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(col. 1 line 64 through col. 2 line 3). Thus, the claims are still being rejected by the combination of either Ogata or Kamata in view of Zhou.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ito (US PAT. 5,745,161) discloses a videoconference system enabling a videoconference to be held among multiple points (abstract). Tabata et al. (US PAT. 6,313,864) discloses an image and voice communication system (figures 22-23 and col. 23 line 23 through col. 25 line 44).

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

12. Any response to this final action should be mailed to:

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Box AF

Commissioner of Patents and Trademarks

Washington D.C. 20231

Or faxed to:

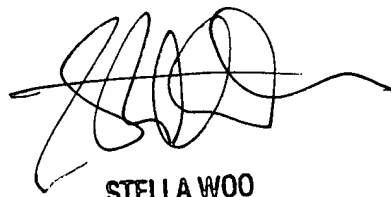
(703) 872-9314 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, V.A., Sixth Floor (Receptionist).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tuesday to Friday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz, can be reached on (703) 305-4870. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



STELLA WOO
PRIMARY EXAMINER

George Eng

Examiner

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